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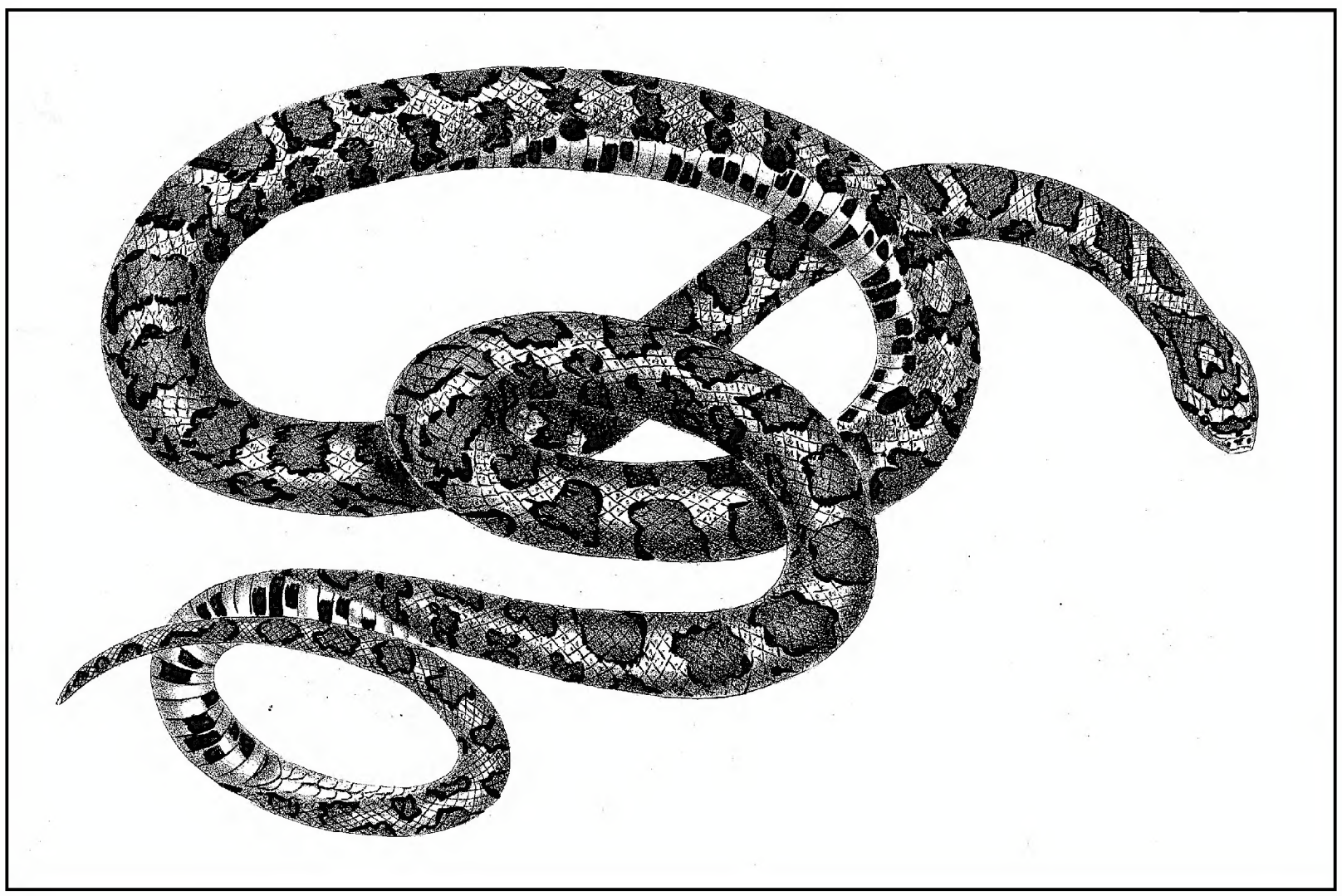

BULLETIN OF THE CHICAGO HERPETOLOGICAL SOCIETY
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Notes on Mexican Herpetofauna 14: An Update to the Herpetofauna of Cerro El Potosí, Galeana, Nuevo León, México . . . . . Jorge A. Contreras-Lozano, David Lazcano, Armando J. Contreras-Balderas and Pablo A. Laví n-Murcio 41

The Tympanum . . . . . René R. Rivera 46

What You Missed at the February Meeting . . . . . John Archer 47

Showtime . . . . . John Archer 50

Herpetology 2010 52

Unofficial Minutes of the CHS Board Meeting, February 12, 2010 55

Advertisements 56

Cover: Eastern milksnake, *Lampropeltis triangulum triangulum* (as *Coluber eximius*). Drawing from *Zoology of New-York or the New-York Fauna. Part III. Reptiles and Amphibia* by James E. De Kay, 1842.

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Notes on Mexican Herpetofauna 14: An Update to the Herpetofauna of Cerro El Potosí, Galeana, Nuevo León, México

Jorge A. Contreras-Lozano[1], David Lazcano[1], Armando J. Contreras-Balderas[2] and Pablo A. Lavín-Murcio[3]

Abstract

To update the herpetological species list for the Cerro El Potosí in Galeana, Nuevo León, we searched for amphibians and reptiles collected and deposited in national and international collections. We found 292 registered specimens: 88 reptiles and 204 amphibians. This resulted in a total of 24 herpetological species for this mountain.

Resumen

Con la intención de actualizar el listado de las especies de herpetofauna para El Cerro el Potosí, en Galeana Nuevo León, se realizó una búsqueda de registros de anfibios y reptiles colectados y depositados en colecciones herpetológicas nacionales e internacionales. Se obtuvo un total de 292 registros, de los cuales 88 fueron reptiles y 204 de anfibios. Se registró una herpetofauna de 24 especies para este Cerro.

Introduction

Cerro El Potosí is located in the municipality of Galeana, Nuevo León, México. Its altitude gradient, climate characteristics and variety of plant communities are responsible for its extraordinary biological diversity. A list of its herpetological diversity has been published (Anonymous, 2000), but further research is still needed. Climatological statistics for the area can be consulted at: http://smn.cna.gob.mx/climatologia/normales/estacion/nl/NORMAL19020.TXT

The following studies have contributed to our knowledge of the herpetofauna of Cerro El Potosí and the surrounding area: Martín del Campo (1953); Horowitz (1955); Knight and Scudday (1985); Treviño (1978). Horowitz (1955) first reported *Phrynosoma orbiculare orientale* (eastern mountain horned lizard or *coatapalcate*) for the municipality of Galeana, Nuevo León. Knight and Scudday (1985) reported the presence of a new species of anguid for the area of Galeana, which they described as *Gerrhonotus parvus* (pigmy alligator lizard or *lagarto pigmeo*). Treviño (1978) surveyed the herpetofauna of southern Nuevo León, including Galeana and Cerro El Potosí.

Studies on other vertebrate groups have been conducted by: Guzmán-Velasco (1998) and Ibarra-Sánchez (2009), but there are still gaps in our knowledge and more field work is needed. The plant communities have received more attention from stud-

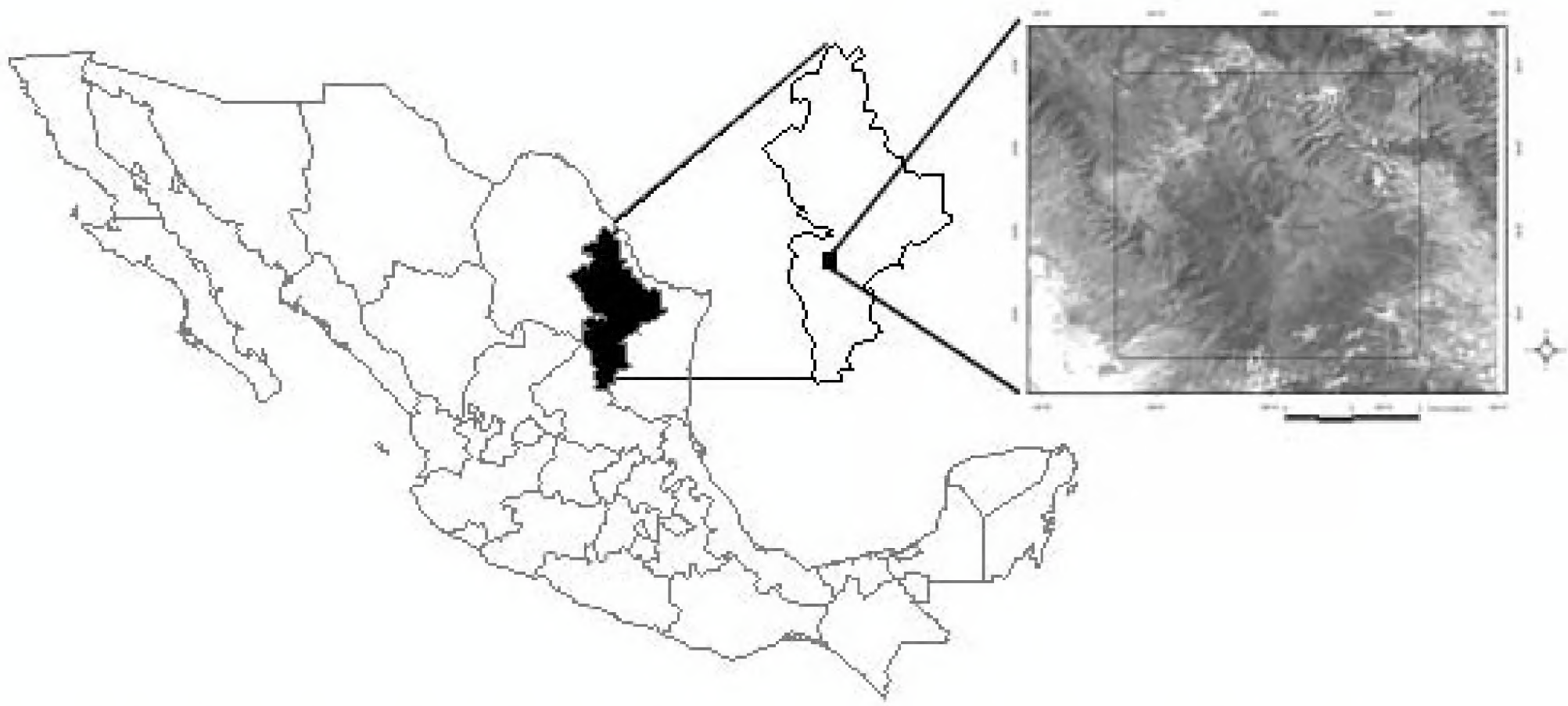

Figure 1. Study site at Cerro El Potosí, Galeana, Nuevo León, México. Landsat image ETM+7, Path 28 Row 43, RGB= 432, May 2003.

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ies like those of Beaman and Andresen (1966), Capo-Arteaga (1972), Sanchez-Silva et al.(1987) and Herrera-Monsiváis (1995). But no complete list of species for these plant communities has yet been published.

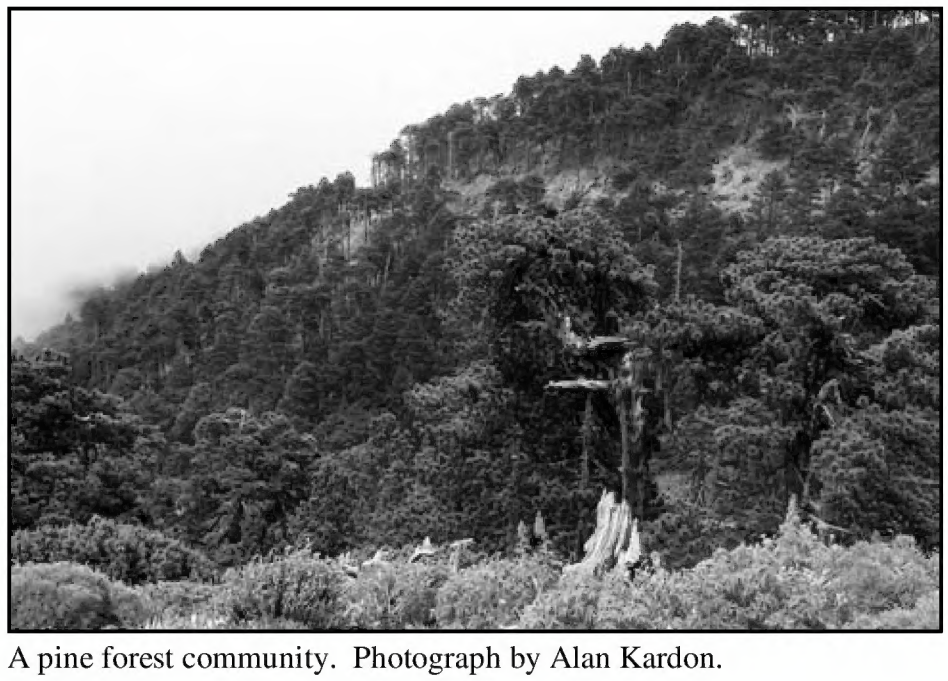
Given its relevance as the highest peak in northern Mexico at 3750 m (García-Arévalo and González-Elizondo, 1991) and its status as a state protected area (Jiménez et al., 2002), we decided to collaborate and publish a more accurate and updated list of the herpetofauna of Cerro El Potosí. From a conservation standpoint monitoring the herpetological diversity of this range is especially important due to its frequent exposure to wildfires (Jimenéz et al., 1996). We were encouraged by the publication of similar herpetological lists from other montane sites in Nuevo León: Parque Ecológico Chipinque in the Sierra Madre (Banda-Leal, 2002; Lazcano et al., 2006), Sierra San Antonio Peña Nevada (Lazcano et al., 2004, Lazcano, 2005), Sierra de Picachos (Contreras-Lozano et al., 2007) and Sierra Cerro de la Silla (Lazcano et al., 2009). We hope that our article contributes to a more complete understanding of the distribution and conservation of the fauna of northern Mexico.

The study area of Cerro El Potosí is part of the Sierra Madre Oriental, according to García-Arévalo and González-Elizondo (1991) and is located in the south-central portion of the state of Nuevo León, 15 km from the municipality capital, Galeana, between 24°50′35″ and 24°53′16″ latitude N and 100°13′9″ and 100°15′12″ longitude W (Figure 1).

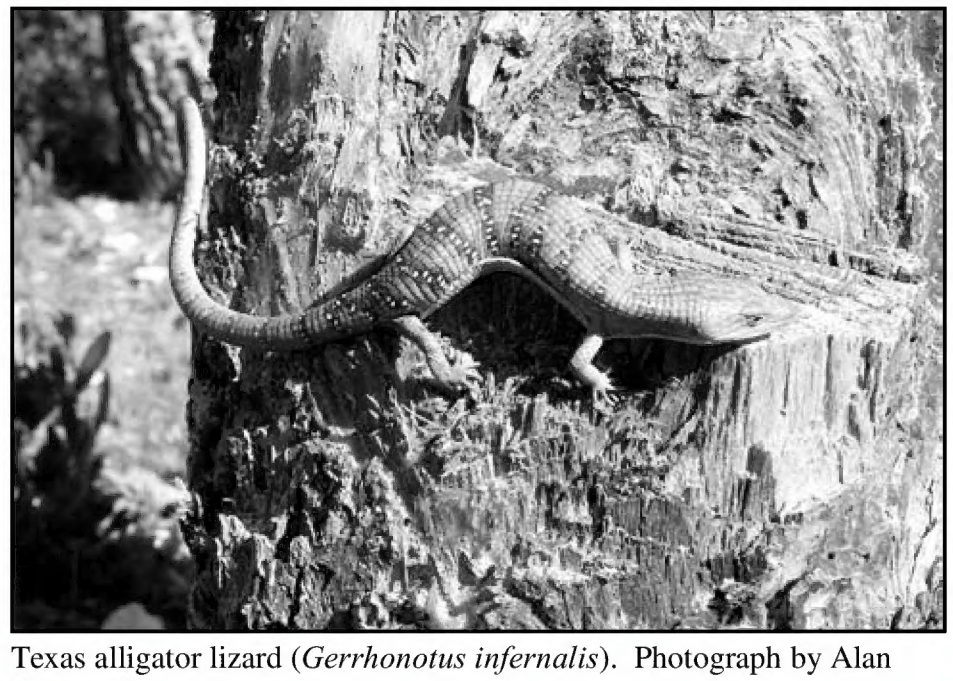
García-Arévalo and González-Elizondo (1991) and García-Arana (1996) describe the vegetation types found in the area. Matorral Mediano Esclerófilo composed of *Quercus intricata* (dwarf oak) is present; agricultural lands are also found in this zone. Various types of mixed pine forests are present and

Table 1. Species of amphibians and reptiles from Cerro El Potosí, based on a reveiw of national and international preserved collections, and their status in the Norma Oficial Mexicana (NOM-059-SEMARNAT-2008). Status codes: A = Amenazada (Threatened); Pr = Protección Especial (Special Protection); SE = Sin Estatus (No Status). NPSMC = Number of Preserved Specimens in Museum Collections. Nomenclature follows Liner and Casas-Andreu (2008).

	Scientific Name	English Common Name	Status	NPSMC
Anura				
Eleutherodactylidae				
	Craugastor augusti	Barking Frog	SE	1
	Syrrhophus guttilatus	Spotted Chirping Frog	SE	2
Bufonidae				
	Rhinella marina	Cane Toad	SE	1
Scaphiopodidae				
	Spea multiplicata	Mexican Spadefoot	SE	3
Caudata				
Plethodontidae				
	Chiropterotriton priscus	Primeval Flat-footed Salamander	Pr	183
	Pseudoeurycea galeanae	Galeana False Brook Salamander	A	14
Squamata–Lizards				
Anguidae				
	Barisia ciliaris	Northern Alligator Lizard	Pr	8
	Gerrhonotus infernalis	Texas Alligator Lizard	Pr	2
Phrynosomatidae				
	Phrynosoma orbiculare	Mountain Horned Lizard	A	1
	Sceloporus cautus	Shy Spiny Lizard	SE	2
	Sceloporus grammicus disparilis	Northestern Graphic Lizard	Pr	15
	Sceloporus minor	Minor Lizard	SE	14
	Sceloporus parvus	Blue-bellied Lizard	SE	11
	Sceloporus samcolemani	Coleman's Bunchgrass Lizard	SE	3
	Sceloporus scalaris	Light-bellied Bunchgrass Lizard	SE	2
	Sceloporus torquatus binocularis	Nuevo Leon Torquate Lizard	SE	2
	Urosaurus ornatus	Ornate Tree Lizard	SE	1
Scincidae				
	Plestiodon brevirostris pineus	Pine Woods Short-nosed Skink	SE	8
Squamata–Snakes				
Colubridae				
	Hypsiglena jani texana	Texas Nightsnake	Pr	1
	Pituophis deppei deppei	Mexican Bullsnake	A	1
	Pituophis deppei jani	Northern Mexican Pine Snake	A	2
	Thamnophis eques virgatenius	Western Montane Mexican Gartersnake	A	1
	Thamnophis exsul	Exiled Mexican Gartersnake	A	1
Crotalidae				
	Crotalus pricei miquihuanus	Eastern Twin-spotted Rattlesnake	Pr	10
	Crotalus scutulatus scutulatus	Northern Mojave Rattlesnake	Pr	2



A pine forest community. Photograph by Alan Kardon.



Texas alligator lizard (*Gerrhonotus infernalis*). Photograph by Alan Kardon.

Pine woods short-nosed skink (*Plestiodon brevirostris pineus*). Photograph by Alan Kardon.

Galeana false brook salamander (*Pseudoeurycea galeanae*). Photograph by Alan Kardon.

Juvenile Mexican spadefoot (*Spea multiplicata*). Photograph by Jorge A Contreras-Lozano.

Coleman's bunchgrass lizard (*Sceloporus samcolemani*). Photograph by Jorge A Contreras-Lozano.

classified according to the dominant species: *Pinus cembroides* (Mexican Pinyon) between 2200 and 2500 m; *Pinus ayacahuite* (Mexican white pine) between 2500 and 3500 m; *Pinus hartwegii* (Mexican mountain pine) between 2900 and 3000 m; and *Pinus culminicola* (dwarf pine) between 3100 and 3650 m. Subalpine grasslands are found between 3600 and 3750 m. The dwarf pine is endemic to Cerro El Potosí and it is subject to special protection under Mexican law.

Methods

Material from the following preserved collections was examined for specimens found in Cerro El Potosí: FCB-UANL—Laboratorio de Herpetología, Universidad Nacional Autónoma de México-UNAM; CAS—California Academy of Sciences Herpetology Collection; LACM—Los Angeles County Museum of Natural History; UNSM—University of Nebraska State Museum; MCZ—Harvard University Museum of Comparative Zoology Herpetology Collection; SDNHM—San Diego Natural History Museum; UK—University of Kansas.

Specimens were identified using criteria established by Smith and Taylor (1945; 1948; 1950), Conant and Collins (1998), and SSAR catalogue accounts. In particular, specimens of the family Phrynosomatidae were identified using Hobart M. Smith's personally developed keys for species from Nuevo León and Tamaulipas. Scientific and common names were updated using Liner and Casas-Andreu (2008).

Results

This inventory applies to herpetofauna found between the altitudes of 2000 and 3750 m. Table 1 lists our findings, with 24 species reported for Cerro El Potosí, represented in the following order: Anura—3 families, 4 genera, 4 species; Caudata—1 family, 2 genera, 2 species; Squamata–Lizards—3 familes, 6 genera, 12 species; Squamata–Snakes—2 families, 4 genera, 6 species.

Discussion and Conclusions

The herpetofauna of the state of Nuevo León comprises 136 species—110 reptiles and 26 amphibians. Our study found 24 species—18 reptiles and 6 amphibians—on Cerro El Potosí, 17.6% of the total herpetological richness of the state.

There is a significant difference in the number of species reported in this article compared with other reports that deal with the herpetological richness of the municipality of Galeana, Nuevo León. This is likely because many of the species in the only previous herpetological list for Cerro El Potosí (Anonymous, 2000) are reported only on the basis of distribution maps for the entire state. Geographical distribution patterns, vegetation types, species behavior and altitude gradients were not considered. Anonymous (2000) lists 40 species—32 reptiles and 8 amphibians. Our updated list in Table 1, based on data from preserved collections and material collected during field work (1984–2009), includes species that were omitted in the earlier list. In Table 2 we list species from the earlier list that are definitely not found in the area or that are found only at lower altitudes.

Table 2. Species listed in Anonymous (2000) that are not found on Cerro El Potosí, based on the museum records examined in this study. Status codes: ● = definitely not found in the area; ○ = found only at lower altitudes; ■ = not a valid taxon. Nomenclature follows Liner and Casas-Andreu (2008).

Species	Status in the area
Rhinophrynus dorsalis (Burrowing Toad)	●
Scaphiopus couchii (Couch's Spadefoot)	○
Syrrhophus cystignathoides campi (Rio Grande Chirping Frog)	●
Smilisca baudinii (Mexican Treefrog)	●
Lithobates berlandieri (Rio Grande Leopard Frog)	○
Gastrophryne olivacea (Western Narrow-mouthed Toad)	●
Kinosternon flavescens (Yellow Mud Turtle)	●
Holbrookia approximans (Speckled Earless Lizard)	●
Sceloporus consobrinus (Prairie Lizard)	●
Sceloporus marmoratus (Northern Rose-bellied Lizard)	●
Sceloporus olivaceus (Texas Spiny Lizard)	●
Sceloporus poinsettii (Crevice Spiny Lizard)	●
Aspidoscelis scalaris gularis (Texas Spotted Whiptail)	●
Plestiodon obsoletus (Great Plains Skink)	●
Leptotyphlops dulcis ssp. (Texas Threadsnake)	○
Coluber constrictor (North American Racer)	○
Coluber taeniatus girardi (Central Texas Whipsnake)	●
Drymarchon melanurus erebennus (Texas Indigo Snake)	○
Drymobius m. margaritiferus (Northern Speckled Racer)	●
Gyalopion canum (Chihuahuan Hook-nosed Snake)	●
Lampropeltis mexicana thayerii (Thayer's Kingsnake)	○
Lampropeltis triangulum annulata (Mexican Milksnake)	●
Leptodeira septentrionalis (Northern Cat-eyed Snake)	○
Pantherophis emoryi (Great Plains Ratsnake)	○
Rhinocheilus l. lecontei (Western Long-nosed Snake)	●
Salvadora grahamiae lineata (Texas Patch-nosed Snake)	○
Storeria dekayi texana (Texas Brownsnake)	●
Thamnophis m. marcianus (Checkered Gartersnake)	●
Thamnophis proximus ssp. (Western Ribbonsnake)	●
Crotalus totonacus (Totonacan Rattlesnake)	●
Crotalus lepidus castaneus	■
Crotalus lepidus lepidus (Mottled Rock Rattlesnake)	●
Crotalus m. molossus (Northern Black-tailed Rattlesnake)	●

If the lower altitude (1980–2190 m) basin of Cerro El Potosí had been considered in our analysis, we would have found other species that are not cited in Table 1, such as: *Crotalus molossus nigrescens*, *Crotalus lepidus morulus*, *Storeria hidalgoensis* and *Thamnophis pulchrilatus*. That would increase the number of species that we have proposed for Cerro El Potosí, and with more intensive field studies the list will surely grow.

Acknowledgments

We wish to thank the multiple national and international institutions that supplied their collection data bases for this specific area, allowing us to update the herpetofauna for Sierra Cerro El Potosí. We thank the Universidad Autónoma de Nuevo León for financial support of this study under project PAICYT CN-1371-06, titled "Estado actual de la fauna silvestre en el

Cerro El Potosí, Área Natural Protegida de Nuevo León, México." And we thank the SEMARNAT for issuing a collecting permit Oficio Num. SGPA/DGVS/01732/08. We also thank the following persons for their participation in lab and field work: Dr. José Ma. Torres Ayala, Jesús Leza and Fernando Solís.

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Bull. Chicago Herp. Soc. 45(3):46, 2010

The Tympanum

Dear Sirs,

With much sadness I have to notify the Society that I have to return to Florida after May 1, 2010. However I would like to remain and continue to be an active member of the Chicago Herpetological Society in the city of Chicago but will be residing in Miami Lakes Florida.

By paying my membership fees I hope to remain in your mailing list and receive your monthly Bulletin that I have been collecting and treasure. In addition it's encouraging to me to keep in touch via e-mail of future meetings and activities that the Society plans and provides to its members so I can plan accordingly.

I have had some of my best times here in Chicago with the Herps, friends and presentation speakers throughout my brief 2 year membership. Attending your meetings, field trips and activities have made my stay here in Chicago quite pleasurable and amiable. I met some very interesting and renowned Herpetologists that I would never have met in Florida.

I will return if possible for main attractions, field trips, excursions and special activities when notified through your e-mails. In my heart I am certain that I will return to this beautiful City if ajob opportunity is at hand for me and I will be without a doubt more active within the Society.

I will attend my last Board of Directors meeting in Schaumburg before I leave to change my mailing address and say my goodbyes.

I am attaching with this letter a check with my membership fees for this year. . . .

Regards, **René R. Rivera, 230 Glen Ellyn Rd. Apt 101, Bloomingdale IL. 60108.**

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What You Missed at the February Meeting

John Archer
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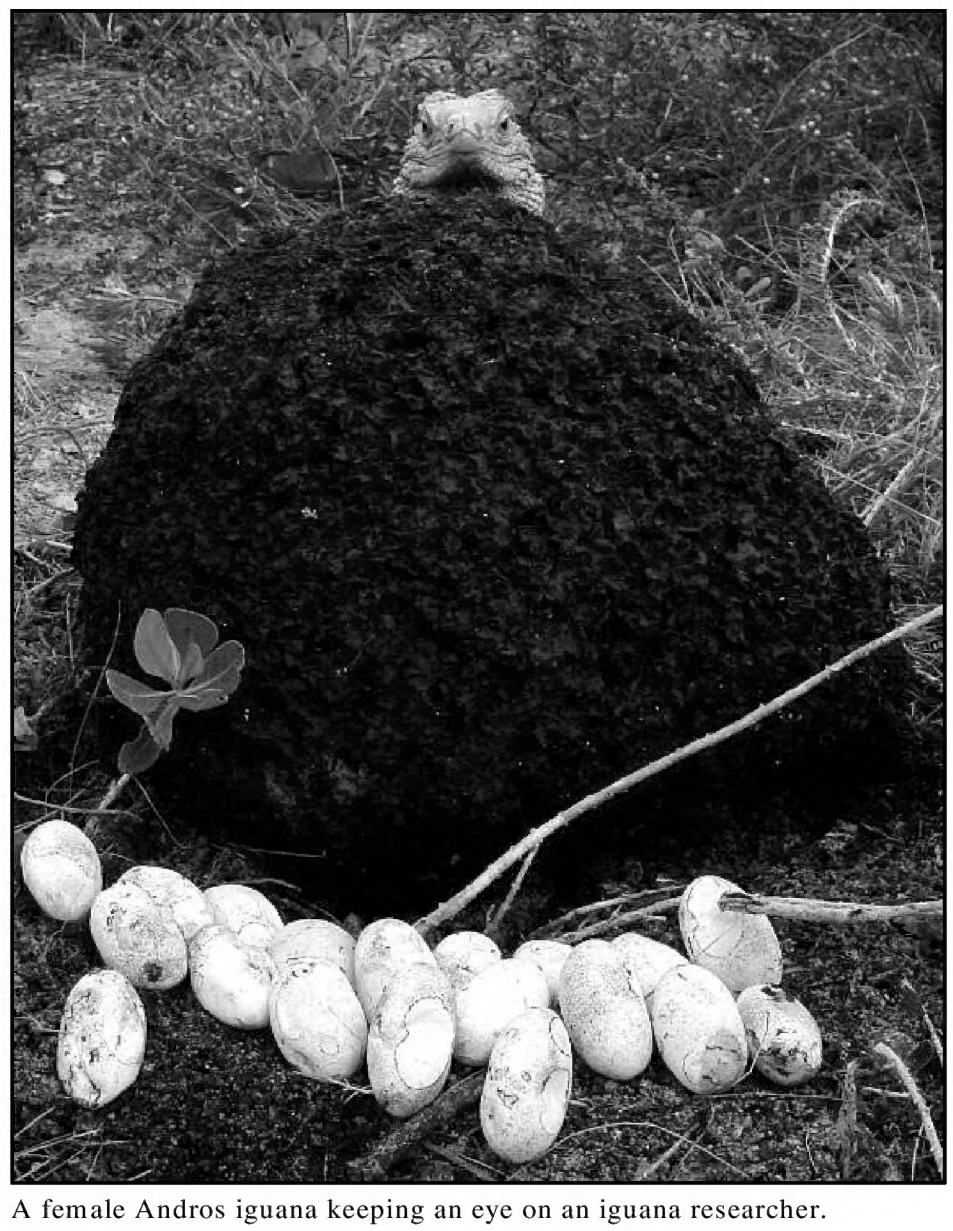
Many times I have no idea what our speaker looks like before I see them at the meeting, so I was not surprised when this guy walked up to me last meeting and introduced himself as that evening's speaker. He reminded me of some actor whose name I can't remember (one of the handsome ones), but he was easygoing and, like all our speakers, totally understanding and helpful as the equipment was set up and I fumbled around trying to get ready. Dr. Charles Knapp is director of conservation and research at the Shedd Aquarium, doing postdoc work with the San Diego Zoo's Institute for Conservation Research, living in Florida, and spending about six months of the year doing research in the Bahamas and the Caribbean. He's a longtime member of the CHS, giving talks in 1993 and 1997, has received research grants from your society, and very quickly after starting his talk thanked us for being there and stressed how important grants from the CHS can be toward research and conservation. I'm fascinated with how our speakers always seem to lack the huge ego that one would think accompanies their huge accomplishments, but after hanging around with so many of them, I find that no matter how high their achievements are ranked, most herpers are still people you'd enjoy sitting and drinking a few beers with. Must be the fact that we all deal with creatures that so many other people loathe.

Chuck Knapp at the podium. Photograph by Dick Buchholz.

Dr. Knapp's presentation was titled "Research and Conservation of Iguanas in the Caribbean and the Bahamas," and the title slide in his talk featured an iguana eye centered in the frame, an arresting opening photo that was followed by many other high quality and interesting shots. He would cover some of his activities in the last 15 years studying the northern Bahamian rock iguana (*Cyclura cychlura*) on Andros Island and the Exuma Cays, the Lesser Antilles iguana (*Iguana delicatissima*) on the island of Dominica, and the green iguana (*Iguana iguana*) on the Caribbean coast of Costa Rica.

He began with the northern Bahamian rock iguana, his favorite animal. His photographs captured the majesty of this beast. Native to Andros Island and the Exuma Cays in the Bahamas, this animal is widely dispersed and hard to find on South Andros Island, but exists in large numbers on some of the smaller Exumas. Little was known of these rock iguanas when Chuck first started studying them, so his initial objectives covered a wide range of goals, from learning the natural history of the animals to initiating local involvement and conservation awareness. One of the more surprising facts to come from his studies was that the Andros Island iguanas (*Cyclura cychlura cychlura*) lay their eggs in active termite mounds. Photos showed how the normally hard-to-find and unapproachable lizards would stay by the mound and guard their eggs even as researchers were photo-

Oxybelis aeneus attacking *Hemidactylus frenatus*. Dr. Knapp included this shot in his presentation because he liked it. I do too.



A female Andros iguana keeping an eye on an iguana researcher.

Tourism is definitely affecting the behavior of Exuma island iguanas
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graphing them. Chuck even showed a video clip of a female depositing her eggs by excavating a mound and shoving the eggs in with her front legs. Andros is a low elevation pine island as yet not densely populated with humans, and while the lizards appear not to be in critical danger, in order to protect them from the threats of habitat loss and fragmentation, feral dogs and cats, and illegal hunting, Dr. Knapp proposed a national park be established on South Andros Island. With justifiable pride, Chuck announced that after many years, the Bahamian government has agreed to establish the park nearly as he had proposed. Sometimes conservationists actually win a battle.

Dr. Knapp was surprised that more attention was not being paid to the plight of the Lesser Antilles iguana.

His studies of the Exuma iguanas (*Cyclura cychlura figginsi*) focus on the threat of tourism. The Exumas are small islands and where there are lizards, they exist in much higher densities than found on Andros. Through the 1980s these islands were little visited, but since then the islands and the iguanas have become greater attractions and tourism has increased fivefold. Feeding iguanas is a popular activity, and the lizards have become bolder, crowding the beaches when tourists arrive. Chuck and his collaborators are collecting blood samples, behavioral data and morphometric data in an attempt to assess the effects of tourism and supplemental feeding. Because iguanas will eat proffered food directly off the beach, the scientists have already seen fecal samples full of sand that seem to hold the potential for impactions. While they continue the study, the researchers are advising the government on mitigation methods and attempting to educate visitors not to feed the iguanas. These islands are scattered and isolated and difficult to police so the challenges are great. Dr. Knapp mentioned that these studies are ongoing and supported by the Shedd Aquarium using the Shedd's research boat and participating volunteer citizen scientists without whom much of the investigations would not be possible.

Dr. Knapp's postdoc work is concentrating on the Lesser Antilles iguana (*Iguana delicatissima*), an animal extirpated over most of its historical range from Anguilla to Grenada. Where it's not been extirpated it is under tremendous pressure, not only from all the usual culprits, but also from hybridization with the green iguana. Chuck chose the island of Dominica for his study because it has relatively large areas of intact native flora and fauna, and the iguana population is not in precipitous decline. His goals were similar to his Bahamian goals, to ac-

Roads and lizards do not mix well, which is especially evident on a short stretch of road on Dominica.

quire the ecological information needed for informed conservation decisions, raise community awareness, and develop a species conservation plan that would coordinate all of the countries where the iguana occurs. Developing a plan for several governments is a new and challenging goal for Dr. Knapp.

The Lesser Antilles iguana has an interesting life cycle on Dominica, involving communal nesting, fairly long migrations to specific nesting habitat, and nesting in soil types that are unstable and subject to frequent landslides and cave-ins. Dr. Knapp stressed the difficulties of studying on Dominica, especially compared to the Bahamas, because of the steep terrain and complicated topography. Because most of the nesting sites are coastal, the iguanas are under threats from resort development and roads, and Chuck attempted to quantify the loss from road kill. One .5 km stretch of road, dubbed the "Valley of Death" by Chuck, had 56% of all the island's recorded road deaths. Signs have been placed asking motorist to slow down and yield to iguanas. Besides radio tracking and road fatalities, Dr. Knapp studies hatchling emergence and survival and conducts outreach programs through the local population to advertise the plight of the lizards. In just a couple of years he seems to have accomplished a lot.

The third part of Chuck's presentation covered the background and summary of a paper that has just been published (*Herpetologica* 65(4):363-372). While radio transmitters offer extraordinary opportunities for ecological studies, it's important to assess what effects the transmitter may have on the animals being studied. Because studies of the effects of transmitters on lizards were lacking and because knowledge of such effects could be important to his other work, Dr. Knapp decided to use green iguana hatchlings (*Iguana iguana*) on the Caribbean coast

An *Oxybelis* consuming one of Chuck's green iguana test subjects, transmitter and all.

This picture of an Andros iguana was a fitting end to Dr. Knapp's presentation.

of Costa Rica at the Iguana Verde Foundation as test subjects. The foundation actually breeds iguanas for release since that is one of the areas where green iguanas are declining, primarily because of hunting pressure. Talking about testing the effects of attached transmitters on the sprint and climb capabilities of green iguana hatchlings doesn't sound like a great basis for a presentation, but Chuck managed not only to hold our interest, but actually elicited laughs and comments from the audience by using great photos, an interesting video, and his excellent wit to not only inform us of the results (transmitters should not weigh more than 7.5% of body mass), but also to educate us on the difficulties of constructing the experiment, the limitations of the results, and the avenues for future study.

Dr. Knapp presented a well thought out, finely illustrated, and totally enjoyable presentation. Along the way his enthusiasm for his researches and his caring for his subjects was always evident. I especially enjoyed his genuine gratitude for the help of citizen scientists, his recognition of how important involvement by the local people is, his compliments and praise for the local officials responsible for the execution of government policies and his gratitude to the CHS for our grants program. It's obvious that Chuck is doing the type of work he loves. We are fortunate that he could share that enthusiasm with us.

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Showtime

by John Archer
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ReptileFest 2010 is April 10 and 11. I've asked Mike once again to resurrect this article. I may have some small points that in certain circumstances contradict the new exhibition rules that the CHS board has approved for all exhibitions, but I don't think so. You still have to be familiar with the rules, and obviously, if there are conflicts with this article and the official exhibition rules, the rules . . . er, rule.

I'd like to stress that while salmonella may not be a threat to you, it can be extremely serious, particularly in small children and those with a compromised immune system. Wash your animals before any show, keep them clean at the show, and stress using sanitizer at the show and washing hands thoroughly after your audience handles your animals. It's a small amount of effort to minimize a potentially large risk.

Most of us happily show off our animals whenever we get the chance. We can easily spend an afternoon showing an interested person our collection, even if the collection consists of a single animal. As the attendance at our annual June show-and-tell meeting demonstrates, we like sharing our animals with other people. That's one of the reasons we belong to the CHS. What's the point of having cool critters if no one else knows about them? And the desire to let others know about our animals fits closely with one of the stated missions of the society, to educate the public about reptiles and amphibians. One of the primary ways that we accomplish this is by bringing our animals to some of the numerous live-animal shows that the society is asked to do.

Having done these shows for a few years, and having worked with ReptileFest numerous times, I think I've gained a few insights into the dos and don'ts of presenting your animals to the public. I don't know everything, and I don't pretend that my way is the only way, but I'm the one writing the article. If you want to express your views, write your own article. Remember that I'm striving for the ideal. I have never done a perfect show, nor do I think that you'll achieve that after you've read this article, but if I can prevent you from making some of the larger mistakes, you'll be ahead of the game the next time you stand in front of a crowd of people asking questions and wanting to handle your very special bearded dragon.

The shows that I'm referring to are not the type where you'd stand on a stage with a hands-free mike and wow the crowd with your great stories and terrific animals. I don't do those kind, and they require skills I probably don't have. I'm not even talking about giving school presentations or performing in front of your local boy scout troop. Those types of shows usually require more than one animal, a script or a lot of practice, and stage presence than most of us lack. I leave those shows to the Bavirshas or Jim Nesci or Dick Buchholz. The shows I'm talking about are closer to demonstrations, where I stand around with an animal in my hand or next to their cage and wait for people to come to me. The CHS does these for museums, park districts, libraries, and other venues and they are essentially miniature ReptileFests. I'll discuss four major aspects of these shows: you; the animal; the audience; and the setting.

You

You're probably smarter than you think you are. You may not know the scientific name for the blue-tongued skink, or how many chambers an amphibian's heart has, but you do know your animal and your interactions with it. Don't lie if you don't know the answer to a question. But the two most frequently asked questions are "Does it bite?" and "Is it poisonous?" I bet you know the answers to both of those. And you know more about YOUR animal than anyone else. People want to know how you interact with it, how you care for it, and what you find fascinating about it. Of course, you may not be as smart as you think you are and the person you're talking with may not be as stupid as you think they are, so don't condescend. Talking down to someone or putting them in their place can backfire when your audience turns out to be a professor of herpetology at Kansas State University. Besides, none of us like to be reminded of how ignorant we are. You're not there to show how much you know; you're there to help others understand and maybe respect these animals. And, especially for the younger show people, never try and scare people with your animals or make fun of those who are afraid. Everyone is afraid of something.

Remember that you've raised your animal and it's healthy. If it isn't healthy, it shouldn't be at the show. Husbandry is an evolving science, especially when it comes to herps. There are definitely wrong ways to keep an animal, but there is probably more than one right way to raise a healthy animal. If your animal is healthy, you're doing something right. That doesn't imply that you shouldn't continue to evaluate your methods. The goal is to get your animal as healthy and happy as possible. You will be able to teach people about caring for the species you have, but you may also learn something.

Check your appearance before you leave for the show. Maybe today is not the day to wear your "Bloodwatch, Vampires at War" T-shirt. Nor would it be good to grab something from the bottom of the laundry basket. Casual is OK, but this may not be the best time for in-your-face clothing. Also keep in mind that few of the animals that we casually drape over our shoulders can be housebroken, so a spare shirt may come in handy. And you'll be talking to people at a close distance. Maybe skipping the garlic pizza for lunch is a good idea.

Listen to what your audience has to say. Almost everyone has an animal story that they want to share. Let them. You may learn something, but more importantly, as ambassadors for our animals, listening allows us to connect with our audience. I rarely will directly contradict some of the wilder tales I hear. I use terms like "unlikely" when someone swears they had a gaboon viper in their basement, and I try not to correct all the technicalities that the speaker has gotten wrong. I'm not trying to turn these folks into herpetologists, and good biologists will

rarely state definite facts, especially when they involve animal behavior. Besides, with the popularity of reptiles increasing, and knowing how easily these animals escape, who am I to say that it wasn't a gaboon viper?

The animal

Perhaps the first thing that your audience will notice is your animal's appearance, but that doesn't necessarily mean you should bring only your best-looking animals. A malformed, deformed or injured animal can be a valuable teaching tool, demonstrating how people abuse or mistreat animals. The animal should be healthy, however. Shows are stressful enough for the animals when they are healthy, and you should make sure they stay healthy. This may mean bringing heat pads or ice blocks (for amphibians) to keep your animals as comfortable as possible. Make sure that your animal gets breaks from being handled. They can get really tired from being passed from person to person. Animals that appear in public should have a temperament that can handle crowds. An excitable or worse, a biting animal, should be left at home. My animals' safety is the most important thing to me at a show. And while I don't yell at children who mishandle my turtle, I will gently correct them and I expect everyone who touches or holds my animals to follow my rules. They are MY animals. Also, if the animals are handled correctly, I worry less about the safety of the people.

If you have animals that are in cages, make sure that the cage looks attractive and is kept clean. People judge us on what they see. I have a sign that states that the display cages are not the cages the animals live in. I made it after it was pointed out to me that the public might assume that it's alright to keep a ten-inch tiger salamander in a two-and-a-half-gallon aquarium all the time. And make some attractive labels or signs for the cages. A scrawled name on a scrap of paper is better than no name, but a neatly printed sign makes a much better impression.

The audience

Watch the people who come by. I bring out different animals for different groups. Small turtles are rarely happy being mauled by a group of toddlers, but a tortoise might handle the attention with aplomb, or at least apathy. Baby snakes do not get handled by kids, but, if adults are nervous, they may have an easier time holding a small snake. Kid groups are always boisterous, but some group activities can easily engage them. I have amphibians, which I don't let people handle, but kids love to feed them. And I often invite a child who seems genuinely interested and responsible to help me put away my salamanders and frogs at the end of the show. Genuinely interested and responsible kids are also allowed to be one of my snake wranglers. I let them handle the snakes, giving them tips on how to pass the animal, how to watch the person taking the animal, and how to protect the animal. You may not feel comfortable doing this, but if you are, and you judge your kids correctly, it can make a kid an animal lover for life, and you can take a little break. No, you can't go to lunch, but you can stay nearby and not have to work quite so hard. Some of these kids have shown up at later shows, coming just to do my work for me. As a friend of mine once said, "Who'd of thought that there were reptile groupies?" Always respect the audience and avoid those assumptions, either good or bad, that prevent you from really understanding and connecting with them. And if you're really thinking about the audience, you'll have hand sanitizer.

The venue

You need to know the conditions that you and your animals will have to cope with. Where's the parking? How far do I have to transport my animals, and how will I do that? Is the show indoors or out? Do you have access to electricity or water? Is there a trash can (what do you do when your animals defecate)? Is there a special theme to this event? Museum shows are different from Chicago Park District shows, and both are totally different from the "expos"—different crowds, different facilities, different treatment from the host of the event. I have a box that I take to every show that contains tape, scissors, paper, heating pads, spare bulbs, zip ties, extra cage furniture, spare shirt, etc. I admit that I even have a general check list that I review as I'm packing. I don't want to show up at an unheated event in the middle of January without some way of keeping my animals warm, and while most venues can supply you with many items, it's always faster and easier if you already have everything you'll need when you arrive.

I could write much more, and I repeat that I don't have all the answers, but if there are those among you who are considering showing your animals, I hope I have given you the basics. The main reason I do shows is because they're fun. The more I learn about my animals, the more fun I have teaching others. Learning new information allows me to expand on my answers when people ask questions, and keeps me from repeating myself and becoming bored. I'm constantly learning from other society members around me at shows. Many snakes really do feel like basketballs, as Mike Scott asserts, and that's a much better analogy than a wallet. Being alongside people like Jenny Vollman, Bob Bavirsha or Rich Crowley provides a huge opportunity not only to learn how to better present your animals, but also to learn more about herpetology in general.

Anyone who has done a show will tell you that they are a lot of work. They take time and energy from you and your animals. So why do I do them? Because I get to watch as a toddler bursts into the room and freezes as she sees the ten-foot python sliding across the floor. She slowly approaches, and with a look of awe on her face, she gently extends a hand and strokes the snake's back. No fear in this two-year-old, just a recognition of shared life. Or I watch as a south side teenager taller than me overcomes his fear and winds up holding my milksnake up to his girlfriend, proudly explaining that "This snake won't hurt you. It's a good snake." I get to swap snake stories with a 92-year-old grandmother who has kept many reptiles and amphibians over the years, as I recognize first to my surprise that this lady likes these animals, and then realize that we are a very diverse group that is impossible to physically qualify. Schoolkids shriek and scream as my slothful tiger salamander makes a lightning-fast grab at the mealworm one of them is holding, then all clamor to be the next to feed him. Snakes aren't slimy; amphibians are. Get out there and teach people that.

Herpetology 2010

In this column the editorial staff presents short abstracts of herpetological articles we have found of interest. This is not an attempt to summarize all of the research papers being published; it is an attempt to increase the reader's awareness of what herpetologists have been doing and publishing. The editor assumes full responsibility for any errors or misleading statements.

JUMPING TADPOLES

D. K. Veeranagoudar [2009, J. Herpetology 43(4):680-684] examined the jumping pattern and its relationship with various body traits in semiterrestrial tadpoles, *Indirana beddomii*. The tadpoles were separated into four groups based on the absence (Group I) or presence (Group II) of functional hind limbs, presence of forelimbs (Group III), and at metamorphic climax (Group IV). During early developmental stages, tadpoles are able to move by flipping and jumping not only forward but also sideways and backward. Prior to takeoff, they usually wag the tail, possibly providing thrust to takeoff. However, in later developmental stages, hind limbs are used for takeoff. In Group I tadpoles, the tail was three times longer than SVL and contributed to jumping performance. In Groups II and III, both SVL and hind-limb length were positively correlated to jumping performance. In the Group III, forelimb length was also correlated with jumping performance. However, stepwise multiple regression analysis showed that, in Group II, hind limbs and, in Group III, forelimbs contributed to jumping performance. Thus *I. beddomii* tadpoles use their tails for jumping at early stages and limbs at later stages. Upon reaching metamorphic climax and thereafter, the correlations between jumping performance and SVL and hind- or forelimb length was lost. Lack of correlation between the body traits and jumping performance during metamorphic climax may be attributed to physiological and anatomical changes occurring during this phase.

BOX TURTLES IN MICHIGAN

K. Marsack and B. J. Swanson [2009, Copeia 2009(4):647-652] report that historically, the eastern box turtle (*Terrapene c. carolina*) was found in 31 counties in Michigan's Lower Peninsula, although it has been extirpated from 13 of those counties in the last ten years. One possible cause is road-based habitat fragmentation with resulting demographic and genetic consequences. Accurately identifying population structure is necessary to determine conservation units and aid in the recovery of *Terrapene c. carolina*. The authors genotyped 163 turtles at eight microsatellite loci from three locations in southwestern Michigan covering 360 km^2. They found high levels of genetic variation (H = 0.83; A = 16) and low levels of genetic differentiation (F_{ST} = 0.006) in the system. The three areas exist as a single population and there was a low rate (11%) of misassignment across the sites. There was initial evidence of a genetic bottleneck in two of the three populations and the system as a whole. However, additional analysis failed to find a mode-shift in allele frequencies and did not detect any further evidence of a bottleneck in any of the populations. The authors conclude that the conflicting genetic indication of a bottleneck, despite the geographic evidence, is due to the long generation time of *Terrapene c. carolina*. Further, the study suggests that the retention of genetic variation despite population declines allows managers flexibility in dealing with the conservation of long-lived species.

CONSERVATION OF THE SMALLEST TORTOISE

V. J. T. Loehr et al. [2009, African Journal of Herpetology 58(2):116-125] note that several climate models predict that the western Succulent Karoo in South Africa will aridify. This region includes the range of the smallest tortoise, *Homopus signatus signatus*. Although the effects of rainfall on the physiology and ecology of *H. s. signatus* received attention in recent years, the results of these studies have not been integrated to facilitate conservation planning. The authors evaluate the importance of body size and the responses of *H. s. signatus* to rainfall variation to make recommendations for the taxon's conservation. The small body of *H. s. signatus* offers one solution to its habitat of low primary productivity and rocky slopes. Nevertheless, female fecundity and egg size increase with female size, and large eggs result in large hatchlings capable of surviving their harsh environment. Females accumulate nutrients in the rainfall season, winter, but also in the dry season, to enable the production of large eggs. Egg production decreases during drought, although some females continue to channel resources to reproduction, apparently at the cost of their own growth. Reduced fecundity and growth, a result of' aridification, would likely lower the production of large eggs and hatchlings. Therefore, conservation measures that reduce the mortality of large females may aid population sustainability. Because egg and hatchling size might drop below a minimum viable size in an aridified environment, *H. s. signatus* conservation would benefit from the development of suitable habitat corridors to enable tortoise movements to regions that will receive sufficient rainfall in the future.

ORIENTATION IN JUVENILE MUD TURTLES

J. B. Iverson et al. [2009, Herpetologica 65(3):237-245] note that hatchling orientation has been widely studied among marine turtle species, but much less so in nonmarine turtles. Yellow mud turtles (*Kinosternon flavescens*) exhibit an unusual semi-aquatic life history with terrestrial estivation or hibernation in summer through winter and aquatic mating and feeding in spring and early summer. Hence, these turtles migrate between wetlands and uplands at least twice each year along the same migration path. To understand the orientation methods used by juvenile turtles, hatchling and second-year mud turtles emerging from hibernation were captured before reaching the water and released in one of two circular arenas placed out of sight of and on the opposite side of the wetland. Recapture locations of these turtles along the perimeter of the arenas suggested that hatchlings probably used visual (e.g., polarized light) or perhaps olfactory cues to orient toward water. However, second-year turtles maintained the same compass bearing used prior to initial capture, suggesting that they employed an internal compass mechanism that was not overridden by proximate cues from the wetland. The probable mechanism for setting that course was likely a sun and/or a magnetic compass.

EFFECTS OF RADIO TRANSMITTERS ON IGUANA HATCHLINGS

C. R. Knapp and J. G. Abarca [2009, Herpetologica 65(4): 363-372] performed a two-part experiment in 2007 and 2008 to investigate the effects of externally affixed radio transmitters on the locomotor performance and survival of green iguana (*Iguana iguana*) hatchlings. Using sprint and climb speeds as locomotor performance variables, they tested in the laboratory the initial speed, maximum burst speed, and overall speed of iguana hatchlings affixed with radio transmitters of 2.5, 5.0, 7.5, 10.0 and 15.0% transmitter-to-body-mass (BM) ratios. The authors then released iguana hatchlings into a Costa Rican lowland forest to record the survival of free-ranging iguanas affixed with transmitters of 5.0, 7.5, and 10.0% transmitter-to-BM ratios. Sprint speeds were not reduced significantly with transmitters of up to 15.0% body mass. Climb speeds, however, were reduced for two of three performance variables at the 10% BM ratio. No significant difference in survival was found between telemetered treatment groups released into the forest. The probability of survival over two field seasons for telemetered iguanas ranged from 52.2 to 65.2% over a 24–30 day assessment period. For telemetered iguanas, percentage BM growth was significantly less for animals affixed with 10.0% BM transmitters than for control iguanas without transmitters. The authors suggest transmitter-to-body-mass ratios for cryptic arboreal lizard species should not exceed 7.5% based on lower climb performance in the laboratory and lower relative mass gain for free-ranging iguanas with =10.0% BM transmitters. Because lizard life histories vary substantially, researchers should be proactive in evaluating the energetic expenditures, foraging strategies, and escape responses of focal species to minimize effects of transmitter and attachment techniques.

DESERT MASSASAUGA CONSERVATION GENETICS

C. D. Anderson et al. [2009, Copeia 2009(4):740-747] note that populations of the desert massasauga rattlesnake (*Sistrurus catenatus edwardsii*) have declined rapidly as desert grassland communities have become reduced and fragmented. To provide information useful for management of remaining populations, the genetic characteristics (based on microsatellite DNA loci) of the last demonstrably extant population in the state of Arizona were compared to a population in the Rio Grande Valley of New Mexico. Results indicated that genetic diversity was relatively high in both populations, with statistically significant heterozygote deficiencies detected at only one of six loci in each population. Contingency tests, Wright's F-statistics, and Bayesian clustering algorithms all indicated substantial subdivision between populations in Arizona and New Mexico, but only contingency tests supported differentiation within the Arizona population. A preliminary hierarchical analysis of variance (incorporating both data from this study and published microsatellite data for the eastern massasauga) indicated that 73% of the total molecular variance was explained by variation within populations, with variation between the two subspecies accounting for 15% of the total variance. Results support the high conservation value of individual populations, as well as the need for further population genetic studies of the desert massasauga rattlesnake.

COPPERHEAD ECOLOGY

C. F. Smith et al. [2009, Herpetological Monographs 23:45-73] studied the spatial and reproductive ecology of a population of copperheads (*Agkistrodon contortrix*) in a basalt trap-rock ecosystem in the central Connecticut River Valley, a region that constitutes the northeastern extreme of this species' geographic range. Adult males (n = 20) and females (n = 15) were surgically implanted with radio-transmitters and tracked every 48 h during the active season (April through October) for three consecutive years (2001 to 2003). From late autumn to early spring (November through March), when snakes were hibernating and thus inactive, tracking was reduced to once per week. Data on movement and other spatial parameters were recorded for each subject using GPS coordinates. There were significant sex differences in activity range size and multiple movement parameters. Throughout the active season males had greater activity range sizes and showed greater movement than females. This trend was pronounced during the mating season, which was restricted to late summer and early fall (late July through September). In contrast to most populations of *A. contortrix* from more southern and western localities, sexual activity (e.g., courtship, coitus, and male–male fighting) was not observed in the spring. Individuals of both sexes showed annual fidelity to: (i) activity range location, (ii) activity range size, (iii) movement distances, (iv) particular features of their activity ranges (e.g., refuge sites), and (v) hibernation sites. Males and females showed no difference in preferred seasonal habitats. In both sexes, shifts in habitat associations during the active season included migrations from over-wintering sites within basalt trap rockslides to upper-elevation, open deciduous forest during the summer foraging and reproductive season. Parturition in the field was recorded in eight instances and was always close to one of the two hibernacula used by the individuals in the study area.

CHYTRID IN A TERRESTRIAL SALAMANDER

S. B. Weinstein [2009, Copeia 2009(4):653-660] reports that the pathogenic chytrid fungus *Batrachochytrium dendrobatidis*, typically associated with anuran amphibians, is present in natural populations of the terrestrial salamander, *Batrachoseps attenuatus*, from California and four congeners from California and Oregon. The chytrid has been present in wild populations of *B. attenuatus* since at least 1973, and while infected salamanders collected in the wild exhibited 100% mortality in the laboratory, wild populations appear to have remained stable with seasonally variable infection rates. Laboratory experiments showed that inoculated salamanders housed in dry microhabitats, mimicking summer aestivation conditions, are able to shed the chytrid infection. Combining these data with the decrease in prevalence from spring to fall suggests that environmental conditions in the natural range of *B. attenuatus* mediate the effects of this potentially highly lethal pathogen, stabilizing this host–pathogen relationship. While *B. attenuatus* continues to be an abundant salamander, other amphibians are experiencing marked declines. An understanding of the relationship between the amphibian chytrid fungus and species of *Batrachoseps* may be applicable to patterns of declines and persistence in other species of plethodontid salamanders, and amphibians in general.

COACHWHIPS AND FRAGMENTED HABITAT

M. J. Mitrovich et al. [2009, J. Herpetology 43(4):646-656] note that habitat fragmentation is a significant threat to biodiversity worldwide. Habitat loss and the isolation of habitat fragments disrupt biological communities, accelerate the extinction of populations, and often lead to the alteration of behavioral patterns typical of individuals in large, contiguous natural areas. The authors used radio-telemetry to study the space-use behavior of the coachwhip, *Masticophis flagellum*, a larger-bodied, wide-ranging snake species threatened by habitat fragmentation, in fragmented and contiguous areas of coastal southern California. They tracked 24 individuals at three sites over two years. Movement patterns of coachwhips changed in habitat fragments. As area available to the snakes was reduced, individuals faced increased crowding, had smaller home-range sizes, tolerated greater home-range overlap, and showed more concentrated movement activity and convoluted movement pathways. The behavioral response shown by coachwhips suggests, on a regional level, area-effects alone cannot explain observed extinctions on habitat fragments but, instead, suggests changes in habitat configuration are more likely to explain the decline of this species. Ultimately, if "edge-exposure" is a common cause of decline, then isolated fragments, appropriately buffered to reduce emigration and edge effects, may support viable populations of fragmentation-sensitive species.

SEA TURTLES IN THE TURKS AND CAICOS

P. B. Richardson et al. [Chelonian Conservation and Biology 8(2):192-207] review the status of marine turtles in the Turks and Caicos Islands (TCI) using data gathered during a multi-disciplinary study involving field surveys, questionnaire-based interviews, and molecular genetics between 2002 and 2006. Large aggregations of foraging turtles in the archipelago's waters are dominated by juvenile green (*Chelonia mydas*) and hawksbill turtles (*Eretmochelys imbricata*), with provisional mixed-stock analysis of these species suggesting that the aggregations originate predominantly from larger and relatively proximate source rookeries in the wider Caribbean region. This study also suggests that the islands host remnant nesting populations of turtles, with hawksbill turtle nests recorded more frequently than green and loggerhead turtle (*Caretta caretta*) nests. The TCI islanders retain a culture of turtle use, with the current regulated and legitimate harvest likely to be one of the largest among the Caribbean Islands. This study suggests that historic and current harvest of turtles and their eggs in the TCI may have contributed to the apparent decline in the country's nesting populations. In order to address this conservation concern, changes to the regulation and management of the TCI's turtle fishery are necessary, but further research is needed to inform these changes.

The Chicago Herpetological Society presents

ReptileFest

The Nation's Largest Educational Reptile and Amphibian Show

April 10th & 11th

10am to 5pm

Come Visit with Hundreds of Spectacular Reptiles and Amphibians

ReptileFest 2010 is proudly sponsored by:

Chicago Herpetological Society members are encouraged to exhibit.
More information at www.Reptilefest.com, or contact Rick Hoppenrath at 708-277-4082.

University of Illinois-Chicago, P.E. Building 901 W. Roosevelt Rd.
(One block west of Halsted), Chicago

Admission: Adults $8.00 • Children (3-11) $6.00

Unofficial Minutes of the CHS Board Meeting, February 12, 2010

The meeting was called to order at 7:42 P.M. at the Schaumburg Public Library. Board members Aaron LaForge, Lawrence Huddleston and Cindy Rampacek were absent.

Officers' Reports

Recording Secretary: Cindy Rampacek was absent. The January minutes were read, corrections made, and accepted.

Treasurer: Andy Malawy presented the January financial report, which was discussed and accepted.

Membership Secretary: Mike Dloogatch reported that the membership is holding steady, and read a list of those memberships expiring this month.

Vice-president: Rick Hoppenrath reported that Karen Eckhart, who had been scheduled as our May speaker, cancelled due to a change in her plans, and he is working on the rest of the year.

Sergeant-at-arms: Dick Buchholz reported that attendance at the January general meeting was 58.

Committee Reports

Shows:
- Chicagoland Kids Expo, February 20–21.
- Project Exploration, Dinner with a Dinosaur, March 12
- Reptile Rampage, March 14.
- Chicagoland Family Pet Show, Arlington Park, March 19–21
- ReptileFest, April 10– 11
- Park Voyagers Day, April 17

The Great Lakes Pet Expo in Milwaukee went very well.

Old Business

ReptileFest: Rick gave an update. Exhibitor applications will go out in the February *Bulletin*.

Meeting rules: Rick and Jenny volunteered to work on them.

S373: Mike and John volunteered to review Rich Crowley's position statement.

Grants: There are many applications. The committee will meet on February 13 to award this year's grants.

New Business

Chicago Wilderness representative: Steve Sullivan ca no longer serve in this position. Rick will consider taking it on.

Digital projector: Our projector needs to be looked at as it is not functioning well during programs. Mike volunteered to look into this. John feels strongly that if it can't be fixed, it will need to be replaced.

Signs/info boards for shows: Money was allotted for this and never used. Rick and Dick will look into the possibilities and report back.

Round Table

Andy Malawy mentioned that Michael Malawy ran his first marathon in Arizona and came in 98th out of over 5000 runners!

Mike Dloogatch mentioned *Serpens* by Guido Mocafico, an unusual coffee-table book of artsy snake photographs.

Nick D'Andrea reported that the Hunting and Fishing Show at the Rosemont Horizon went well.

The meeting was adjourned at 8:55 P.M.

Respectfully submitted by Jenny Vollman for recording secretary Cindy Rampacek

Advertisements

For sale: rats and mice—pinkies, fuzzies and adults. Quantity discounts. Please send a SASE for pricelist or call Bill Brant, *THE GOURMET RODENT*, 12921 SW 1st Rd, Ste 107-434, Jonesville, FL 32669, 352-472-9189, E-mail: GrmtRodent@aol.com.

For sale: from **The Mouse Factory**, producing superior quality, frozen feeder mice and rats. Our mice and rats are vacuum-packed to greatly extend freezer life by reducing freezer burning and preserving vitamin and nutrient content. We feed our colony a nutrtionally balanced diet of rodent chow, formulated especially for us, and four types of natural whole grains and seeds. For a complete price list please visit our web site, www.themousefactory.com. We accept all major credit cards, PayPal or money orders. Call us **toll-free** (800) 720-0076 or send us an e-mail at info@themousefactory.com. Write us at PO Box 85, Alpine TX 79831.

For sale: **high quality frozen feeders**. Over a decade of production and supply. Seven sizes of mice availabe: small newborn pinks up to jumbo adults. Prices start at $25 per 100. Feeders are separate in the resealable bag, not frozen together. Low shipping rates. Free price list. Kelly Haller, 4236 SE 25th Street, Topeka KS 66605, (913) 234-3358 evenings and weekends.

For sale: Rats—live or frozen. I breed rats for my collection of boas so only top quality lab chow and care will do, I'm now offering surplus animals for sale. Located in far south suburbs of Chicago. Only orders of 20 or more please, no large rats will be available. For current availability and prices, please e-mail Steve at smuys@sbcglobal.net.

For sale: Trophy quality jungle carpet, diamond-jungle, and jaguar carpet pythons. Website: moreliatrophyclub.com E-mail: junglejohn@tds.net

Herp tours: Adventure trips to **Madagascar**! Journey somewhere truly unique to seek and photograph nature on the world's least-studied mini-continent. For maximum herp fun and discovery, join Bill Love as we go where few people will ever venture in their lives. Let his experience assure a comfortable tour finding the most colorful and bizarre species on the planet! Get all the details at Blue Chameleon Ventures' comprehensive new website: <http://www.bluechameleon.org>, E-mail: bill@bluechameleon.org, or call (239) 728-2390.

Herp tours: The beautiful Amazon! Costa Rica from the Atlantic to the Pacific! Esquinas Rainforest Lodge, the Osa Peninsula, Santa Rosa National Park, and a host of other great places to find herps and relax. Remember, you get what you pay for, so go with the best! GreenTracks, Inc. offers the finest from wildlife tours to adventure travel, led by internationally acclaimed herpers and naturalists. Visit our website <http://www.greentracks.com> or call (800) 892-1035, E-mail: info@greentracks.com

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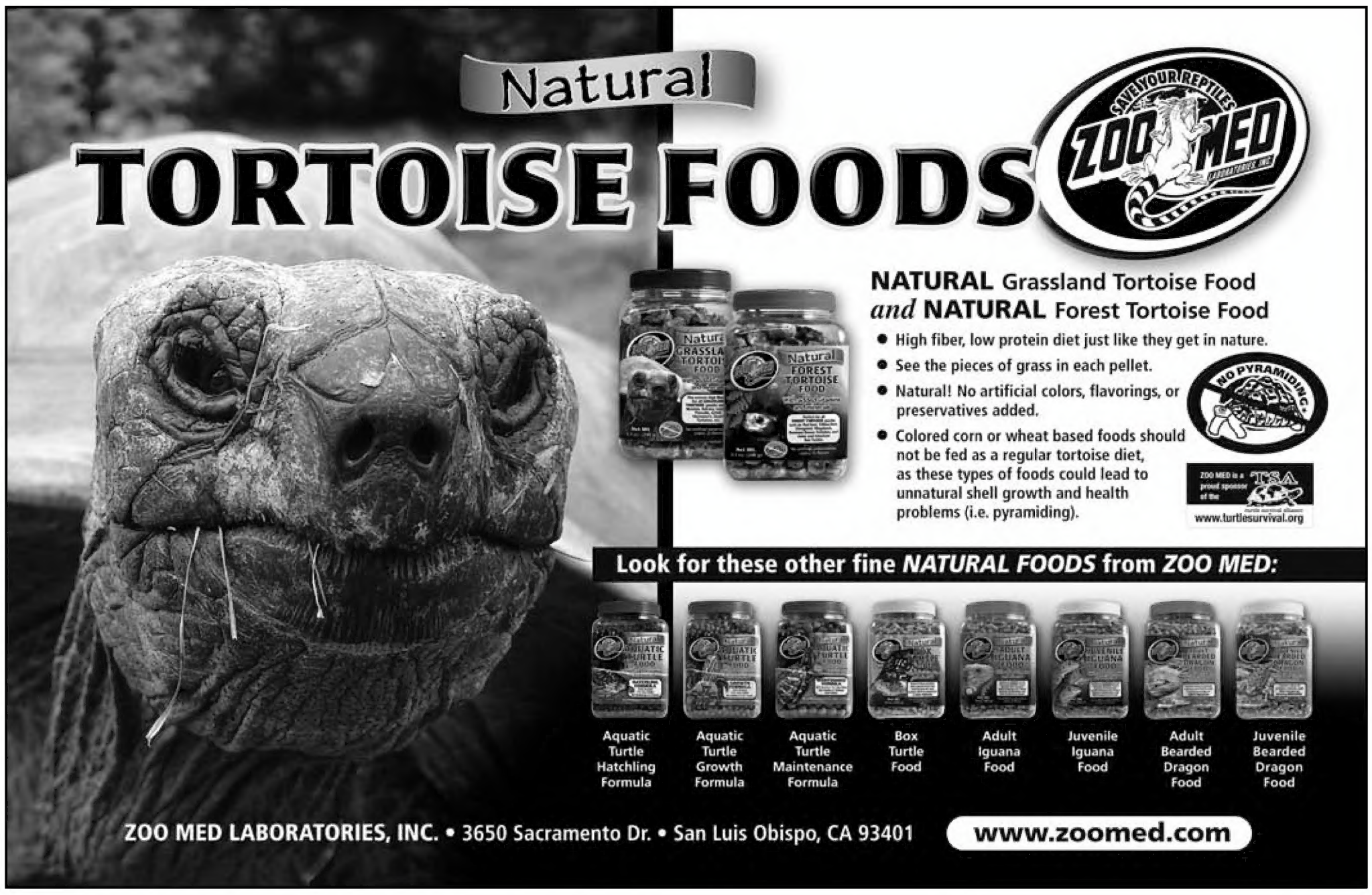
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UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, March 31, at the Peggy Notebaert Nature Museum, Cannon Drive and Fullerton Parkway, in Chicago. **Dr. Paul Sereno**, a professor in the University of Chicago's Department of Organismal Biology and Anatomy and a world-famous paleontologist, will speak about crocodilians and their relatives, past and present. One of Paul's many notable discoveries was a remarkably complete skeleton of *Sarcosuchus imperator*, a 40-foot-long crocodyliform popularly known as SuperCroc. By studying modern crocodilians Paul has gained insights into how *Sarcosuchus* may have lived and grown. You don't want to miss this one.

Speaking at the April 28 CHS meeting will be **Jeff Lemm**, a herpetologist at the San Diego Zoo's Institute for Conservation Research. An avid field herper, Jeff has also been keeping and breeding reptiles and amphibians for over 25 years. Jeff's professional research interests include monitor lizards, rock iguanas, and native Southern California herpetofauna. Jeff also enjoys photographing wildlife in the wild and has traveled extensively throughout the world in search of his subjects. He will speak to us about Australian herps.

The regular monthly meetings of the Chicago Herpetological Society take place at Chicago's newest museum—the **Peggy Notebaert Nature Museum**. This beautiful building is at Fullerton Parkway and Cannon Drive, directly across Fullerton from the Lincoln Park Zoo. Meetings are held the last Wednesday of each month, from 7:30 P.M. through 9:30 P.M. Parking is free on Cannon Drive. A plethora of CTA buses stop nearby.

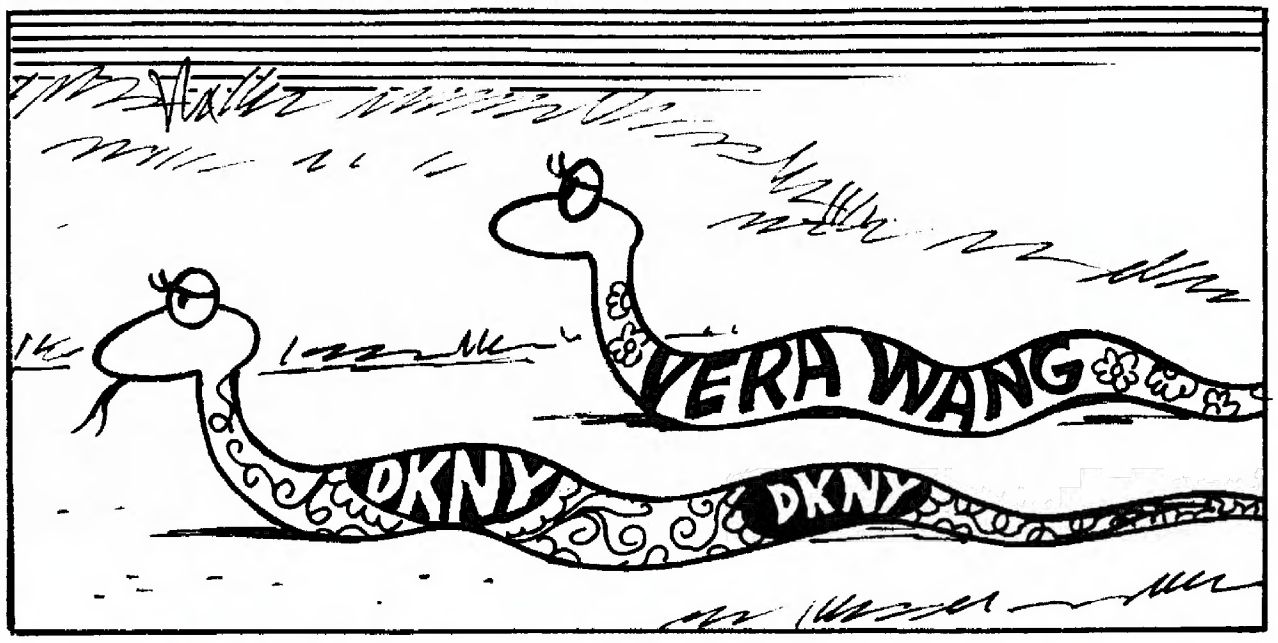
Board of Directors Meeting

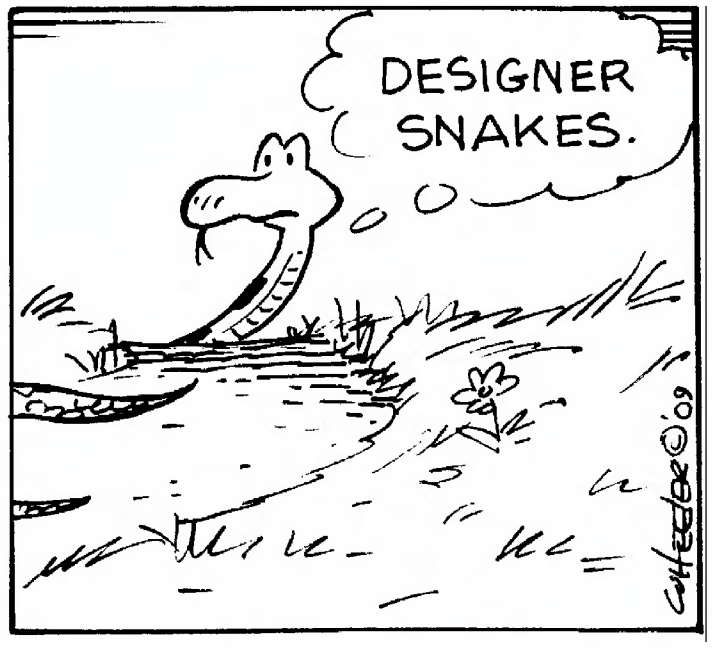
Are you interested in how the decisions are made that determine how the Chicago Herpetological Society runs? And would you like to have input into those decisions? If so, mark your calendar for the next board meeting, to be held at 7:30 P.M., April 16, in the adult meeting room on the second floor of the Schaumburg Township District Library, 130 S. Roselle Road, Schaumburg.

The Chicago Turtle Club

The monthly meetings of the Chicago Turtle Club are informal; questions, children and animals are welcome. Meetings normally take place at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago. Parking is free. For more info visit the CTC website: http://www.geocities.com/~chicagoturtle.

THE ADVENTURES OF SPOT





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